

Abstract

Compounds of the formula (I) provide pharmacological agents which lower intracellular glucocorticoid concentrations in mammals, in particular, intracellular cortisol levels in humans. Therefore, the compounds of the instant invention improve insulin sensitivity in the muscle and the adipose tissue, and reduce lipolysis and free fatty acid production in the adipose tissue. The compounds of the invention lower hepatic glucocorticoid concentration in mammals, in particular, hepatic cortisol concentration in humans, resulting in inhibition of hepatic gluconeogenesis and lowering of plasma glucose levels. Thus, the compounds of the instant invention may be particularly useful in mammals as hypoglycemic agents for the treatment and prevention of conditions in which hyperglycemia and/or insulin resistance are implicated, such as type-2 diabetes. The compounds of the invention may also be used to treat other glucocorticoid associated disorders, such as Syndrome-X, dyslipidemia, hypertension and central obesity. The invention furthermore relates to the use of the compounds according to the invention for the preparation of medicaments, in particular of medicaments useful for the treatment and prevention of glucocorticoid associated disorders, by improving insulin sensitivity, reducing plasma glucose levels, reducing lipolysis and free fatty acid production, and by decreasing